

REQUEST FOR COUNCIL ACTION

SUBJECT: 7800 South Letter of Map Revision (LOMR) Application Assistance

SUMMARY: Approve an Agreement with Bowen Collins & Associates, Inc. to provide engineering services for 7800 South LOMR Application Assistance, in an amount not to exceed \$14,700.00.

FISCAL

IMPACT: The funds for this project are available in various RDA accounts.

STAFF RECOMMENDATION:

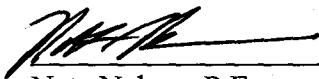
Staff recommends approval of the Agreement with Bowen Collins & Associates, Inc. to provide engineering services for 7800 South LOMR Application Assistance, in an amount not to exceed \$14,700.00.

MOTION RECOMMENDED:

"I move to adopt Resolution No. 14-66 authorizing the Mayor to execute an Agreement with Bowen Collins & Associates, Inc. to provide engineering services for 7800 South LOMR Application Assistance, in an amount not to exceed \$14,700.00.

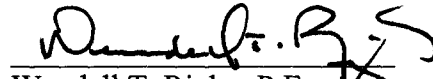
Roll Call vote required

Prepared by:



Nate Nelsen, P.E.
City Engineer

Reviewed by:



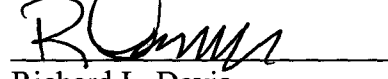
Wendell T. Rigby, P.E.
Director of Public Works

Reviewed as to Legal Sufficiency:



Jeffery Robinson
City Attorney

Recommended by:



Richard L. Davis
City Manager

BACKGROUND DISCUSSION:

The City of West Jordan desires to have the Zone A floodplain shown on the attached figures restudied and removed from the FEMA Flood Insurance Rate Map (FIRM) through the Letter of Map Revision (LOMR) process. There is currently a finger of area shown as Zone A on the FIRMs that affects businesses and homes in the area, requiring them to have flood insurance and be subjected to the rules of the National Flood Insurance Program. It is not currently known why the Zone-A area exists on the maps without any known natural drainage channel in the area. The City installed a 72-inch RCP stormdrain in 7800 in 2003 which serves as a major storm drainage trunk line and is designed to contain the 100 year storm event. The City feels that a new hydraulic study will verify that the special flood hazard area can be removed from the FIRM.

Attachments:

- Proposal Evaluation
- Resolution
- Agreement

A Municipal Corporation
RESOLUTION NO. 14-66

Whereas, the City Council of the City of West Jordan has received proposals for 7800 South LOMR Application Assistance with the low, responsible bid being from Bowen, Collins & Associates, in the amount of \$14,700.00; and

Whereas, the City Council desires to award the contract to Bowen Collins & Associates, Inc. which award shall not be binding upon the City of West Jordan unless and until the agreement is fully executed by the parties; and

Whereas, the proposed contract between the City of West Jordan and Bowen Collins & Associates, Inc. (a copy of which is attached as **Exhibit A**) to provide engineering services for the 7800 South LOMR Application Assistance in an amount not-to-exceed \$14,700.00 has been reviewed; and

Whereas, the City Council of the City of West Jordan has determined that the attached agreement with Bowen Collins & Associates, Inc. for an amount not-to-exceed \$14,700.00 is acceptable for the purpose of providing 7800 South LOMR Application Assistance.

NOW, THEREFORE, IT IS RESOLVED BY THE CITY COUNCIL OF WEST JORDAN, UTAH:

- Section 1. The contract for engineering services for 7800 South LOMR Application Assistance is hereby awarded to Bowen Collins & Associates, Inc., which award shall not be binding upon the City of West Jordan until the contract is fully executed by the parties.
- Section 2. After approval as to legal form by the City Attorney, the Mayor is hereby authorized to execute the Agreement between the City of West Jordan and Bowen Collins & Associates, Inc. in an amount not to exceed \$14,700.00.
- Section 3. This Resolution shall take effect immediately.

Adopted by the City Council of West Jordan, Utah, this 2nd day of April 2014.

CITY OF WEST JORDAN

ATTEST:

By: _____
Mayor Kim V. Rolfe

MELANIE BRIGGS
City Recorder

Voting by the City Council

"AYE"

"NAY"

Jeff Haaga

Judy Hansen

Chris McConnehey

Chad Nichols

Ben Southworth

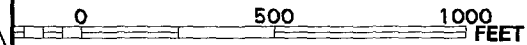
Justin D. Stoker

Mayor Kim V. Rolfe

Flood Insurance Program at (800) 638-6620.



MAP SCALE 1" = 500'



ZONE X

1300 WEST STREET

7800 SOUTH STREET

ZONE A

JOINS PANEL 0427

ZONE

LIMIT OF STUDY

4320

Bingham Creek

8050

4322

ZONE X

W 8040 S

RAILROAD

W 8045 S

S 1500 W

W 8085 S

PANEL 0431G

FIRM
FLOOD INSURANCE RATE MAP
SALT LAKE COUNTY,
UTAH
AND INCORPORATED AREAS

PANEL 431 OF 625

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
WEST JORDAN, CITY OF	400108	0431	G
MIDVALE, CITY OF	400211	0431	G
SANDY CITY, CITY OF	400108	0431	G
SALT LAKE COUNTY, UNINCORPORATED AREAS	400102	0431	G

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
49035C0431G

MAP REVISED:
SEPTEMBER 25, 2009

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Proposal Review**Project:****7800 South LOMR Application Assistance****Review Team:**

Nate N., Todd J., Tim H.,

Review Date Deadline:

3/10/2014 11 a.m.

Rating Weights (% of total weighted percentage)(example, if weighted % =15%, possible points = 15) (score each proposal area up to percentage weight: ie., between 1-15 pts, 0-5 Fair, 6-10 Good, and 11-15 Exceptional) Costs shall be evaluated together as a group.

Consultant	Weighted %	Bowen Collins & Associates	Psomas
Provide a description of how you will perform the work	25	20.67	24.00
Submit a brief description of qualifications to perform this type of work	15	15.00	12.00
Provide a list of similar projects with references	15	15.00	12.33
Proposed schedule of work	10	10.00	9.00
Sub-Total		60.67	57.33
Cost	35	35.00	30.26
RFP SCORE	100	95.67	87.60
Total Hours		140	178
Cost		\$14,700.00	\$17,000.00
Hourly Rate		\$105.00	\$95.51
RANK		1	

AGREEMENT FOR PROFESSIONAL SERVICES

City of West Jordan 7800 South LOMR Application Assistance

THIS AGREEMENT, made this 2nd day of April 2014 between the City of West Jordan, a municipal corporation (hereinafter referred to as "City"), and Bowen Collins & Associates, Inc. (hereinafter referred to as "Consultant").

WHEREAS, the City desires to obtain engineering services from Consultant, and Consultant desires to provide these services to City. City and Consultant, therefore, agree as follows:

1. **RETENTION AS CONSULTANT.** City hereby retains Consultant, and Consultant hereby accepts such engagement, to perform the services described in Paragraph 2 herein. Consultant warrants it has the qualifications, experience and facilities to properly perform these services.

2. **DESCRIPTION OF SERVICES.** The services to be performed by Consultant shall be as follows:

(1) See attached Request for Proposal and Bowen Collins & Associates, Inc. submitted Proposal. (Exhibit A)

The above services shall be performed in accordance with the City's Request for Proposal inclusive of the Consultant's Proposal dated February 28, 2014 which are incorporated herein by this reference. The Proposal is more fully set forth in Exhibit A which is attached to this Agreement.

3. **COMPENSATION AND PAYMENT.** Except for authorized extra services (pursuant to Paragraph 4), if any, the total compensation payable to Consultant by City for the services described in Paragraph 2 shall not exceed the sum of \$14,700.00.

All payments shall be made within thirty (30) calendar days after the Consultant has provided the City with written verification of the actual compensation earned, which written verification shall be in a form satisfactory to the City. Invoices shall be made no more frequently than on a monthly basis, and shall describe work performed.

4. **EXTRA SERVICES.** City shall pay Consultant for extra services which are authorized in writing in addition to the services described in Paragraph 2, in such amounts as mutually agreed to in advance. Unless the City and Consultant have agreed in writing before the performance of extra services, no liability and no right to claim compensation for such extra services or expenses shall exist.

5. **SERVICES BY THE CITY.** The City shall perform the following services:

- (1) Provide to Consultant copies of available information related to the project and project site
- (2) Promptly review Consultants work and provide Consultant with comments, if any, in a timely manner.

6. **PROGRESS AND COMPLETION.** Consultant shall commence work on the services to be performed upon receiving an executed copy of this Agreement from the City.

7. **OWNERSHIP OF DOCUMENTS.** All drawings, designs, data, photographs, reports and other documentation, including duplication of same prepared by Consultant in the performance of these services,

shall become the property of City upon termination of the consulting services pursuant to this agreement and upon payment in full of all compensation then due Consultant. The City agrees to hold the Consultant harmless from all damages, claims, expenses and losses arising out of any reuse of the plans and specifications for purposes other than those described in this Agreement, unless written authorization of the Consultant is first obtained.

8. **PERSONAL SERVICES; NO ASSIGNMENT; SUBCONTRACTOR.** This Agreement is for professional services, which are personal services to the City. The following persons are deemed to be key member(s) of or employee(s) of the Consultant's firm, and shall be directly involved in performing or assisting in the performance of this work:

Craig Bagley, P.E.
Matt Stayner

Should these individuals be removed from assisting in this contracted work for any reason, the City shall have the right to approve the replacement individuals assigned to the project or may terminate this Agreement.

This Agreement is not assignable by Consultant, without the City's prior consent in writing.

9. **HOLD HARMLESS AND INSURANCE.**

A. Indemnity.

Consultant shall indemnify and hold the City, its elected officials, officers and employees, harmless from all claims, lawsuits, demands, judgments or liability including reasonable attorney's fees, but not limited to, general liability, automobile and professional errors and omissions liability, arising out of, directly or indirectly, the negligent acts, errors and omissions of the Consultant in performing the services described.

B. Insurance.

Consultant shall, at Consultant's sole cost and expense and throughout the term of this Agreement and any extensions thereof, carry:

- (1) workers compensation insurance adequate to protect Consultant from claims under workers compensation acts;
- (2) professional errors and omissions insurance in the amount not less than \$1,000,000; and
- (2) general personal injury and property damage liability insurance and automobile liability insurance with liability limits of not less than \$1,000,000 for each claimant and \$1,000,000 for each occurrence related to the injury or death of a person or persons and for property damage. The City, its officers and employees, shall be named as an additional insured.

All insurance policies shall be issued by a financially responsible company or companies authorized to do business in the State of Utah which are carry a Moody's rating of not less than B+. Consultant shall provide City with copies of certificates (on the City certificate form) for all policies reflecting the coverage, with an endorsement that they are not subject to cancellation without thirty (30) calendar days prior written notice to City.

10. **RELATIONSHIP OF THE PARTIES.** The relationship of the parties to this Agreement shall be that of independent contractor(s). In no event shall Consultant be considered an officer, agent, servant or employee of City. The Consultant shall be solely responsible for any worker's compensation, withholding taxes, unemployment insurance and any other employer obligations associated with the described work.

11. **STANDARD OF CARE.** Consultant services shall be performed in accordance with the skill and care ordinarily exercised by members of the same profession performing the same or similar services at the time Consultant's services are performed. Consultant shall, at Consultant's sole expense reperform any services not meeting this standard.

12. **CORRECTIONS.** In addition to the above indemnification obligations, the Consultant shall correct, at its expense, all errors in the work which may be disclosed during the City's review of the Consultant's report or plans. Should Consultant fail to make such correction in a reasonably timely manner, such correction shall be made by the City, and the cost thereof shall be charged to and paid by Consultant. "Errors in the work" as referred to above does not include and shall be in addition to, "redlines" or other standard corrections which are provided to Consultant by City.

13. **TERMINATION BY CITY.** Unless otherwise stated in the Special Terms and Conditions, this contract may be terminated, with cause by either party, in advance of the specified termination date, upon written notice being given by the other party. The party in violation will be given ten (10) working days after notification to correct and cease the violations, after which the contract may be terminated for cause. This contract may be terminated without cause, in advance of the specified expiration date, by either party, upon 30 days prior written notice being given the other party. On termination of this contract, all accounts and payments will be processed according to the financial arrangements set forth herein for approved services rendered to date of termination.

14. **ACCEPTANCE OF FINAL PAYMENT CONSTITUTES RELEASE.** The acceptance by Consultant of the final payment made under this Agreement shall operate as and be a release to City from all claims and liabilities for compensation to, or claimed by, Consultant for anything done, finished or relating to the Consultant's work or services. Acceptance of payment shall be any negotiation of the City's check.

However, approval or payment by the City shall not constitute nor be deemed a release of the responsibility and liability of Consultant, its employees, subcontractors, agents and consultants for the accuracy and/or competency of the information provided and/or work performed; nor shall such approval or payment be deemed to be an assumption of such responsibility or liability by the City for any defect or error in the work prepared by Consultant, its employees, subcontractors, agents or consultants.

15. **WAIVER; REMEDIES CUMULATIVE.** Failure by a party to insist upon the strict performance of any of the provisions of this Agreement by the other party, irrespective of the length of time for which such failure continues, shall not constitute a waiver of such party's right to demand strict compliance by such other party in the future. No waiver by a party of a default or breach of the other party shall be effective or binding upon such party unless made in writing by such party and no such waiver shall be implied from any omission by a party to take any action with respect to such default or breach. No express written waiver of a specified default or breach shall affect any other default or breach, or cover any other period of time, other than any default or breach and/or period of time specified. All of the remedies permitted or available to a party under this Agreement, or at law or in equity, shall be cumulative and alternative, and invocation of any such right or remedy shall not constitute a waiver or election of remedies with respect to any other permitted or available right or remedy.

16. **CONSTRUCTION OF LANGUAGE OF AGREEMENT.** The provisions of this Agreement shall be construed as a whole according to its common meaning and purpose of providing a public benefit and not strictly for or against any party. It shall be construed consistent with the provisions hereof, in order to achieve the objectives and purposes of the parties. Wherever required by the context, the singular shall include the plural and vice versa, and the masculine gender shall include the feminine or neutral genders or vice versa.

17. **MITIGATION OF DAMAGES.** In all situations arising out of this Agreement, the parties shall attempt to avoid and minimize the damages resulting from the conduct of the other party.

18. **RECORDS ADMINISTRATION.** The Consultant shall maintain, or supervise the maintenance of all records necessary to properly account for the payments made to the Consultant for costs authorized by this contract. These records shall be retained by the Consultant for at least four years after the contract terminates, or until all audits initiated within the four years, have been completed, whichever is later.

19. **GOVERNING LAW.** This Agreement, and the rights and obligations of the parties, shall be governed and interpreted in accordance with the laws of the State of Utah.

20. **CAPTIONS.** The captions or headings in the Agreement are for convenience only and in no other way define, limit or describe the scope or intent of any provision or section of the Agreement.

21. **AUTHORIZATION.** Each party has expressly authorized the execution of this Agreement on its behalf and bind said party and its respective administrators, officers, directors, shareholders, divisions, subsidiaries, agents, employees, successors, assigns, principals, partners, joint ventures, insurance carriers and any others who may claim through it to this Agreement.

22. **REPRESENTATION REGARDING ETHICAL STANDARDS FOR CITY OFFICERS AND EMPLOYEES AND FORMER CITY OFFICERS AND EMPLOYEES.** The Consultant represents that it has not: (a) provided an illegal gift or payoff to a city officer or employee or former city officer or employee, or his or her relative or business entity; (b) retained any person to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, other than as exempted in the City's Conflict of Interest ordinance; or (c) knowingly influenced (and hereby promises that it will not knowingly influence) a city officer or employee or former city officer or employee to breach any of the ethical standards set forth in the City's Conflict of Interest ordinance, Title 2, Chapter 4 of the City of West Jordan Municipal Code.

23. **EQUAL OPPORTUNITY CLAUSE.** The Consultant agrees to abide by the provisions of Title VI and VII of the Civil Rights Act of 1964 (42USC 2000e) which prohibits discrimination against any employee or applicant for employment or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination on the basis of sex; 45 CFR 90 which prohibits discrimination on the basis of age; and Section 504 of the Rehabilitation Act of 1973, or the Americans with Disabilities Act of 1990 which prohibits discrimination on the basis of disabilities. Also, the Consultant agrees to abide by Utah's Executive Order, dated June 30, 1989, which prohibits sexual harassment in the work place.

24. **ENTIRE AGREEMENT BETWEEN PARTIES.** Except for Consultant's proposals and submitted representations for obtaining this Agreement, this Agreement supersedes any other agreements, either oral or in writing, between the parties hereto with respect to the rendering of services, and contains all of the covenants and agreements between the parties with respect to said services. Any modifications of this Agreement will be effective only if it is in writing and signed by the party to be charged.

25. **PARTIAL INVALIDITY.** If any provision in this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions will nevertheless continue in full force without being impaired or invalidated in any way.

26. **NOTICES.** Any notice required to be given hereunder shall be deemed to have been given by depositing said notice in this United States mail, postage prepaid, or by facsimile with proof of transmission, and addressed as follows:

TO CITY: CITY OF WEST JORDAN
Nate Nelsen, P.E.
8000 South Redwood Road
West Jordan, Utah 84088
Facsimile No.: (801) 569-5127

With a copy to the City Attorney
Jeff Robinson, City Attorney
8000 South Redwood Road
West Jordan, Utah 84088
Facsimile No.: (801) 569-5149

TO CONSULTANT: Craig Bagley, P.E.
Bowen, Collins & Associates
154 East 14000 South
Draper, UT 84020
P: 801-495-2224
F: 801-495-2225

EXECUTION OF AGREEMENT

In concurrence and witness whereof, this Agreement has been executed by the parties effective on the date and year first above written.

CITY OF WEST JORDAN

ATTEST:

Kim V. Rolfe
Mayor

Melanie Briggs, MMC
City Recorder

APPROVED AS TO LEGAL FORM

City Attorney

CONSULTANT

By: _____
Its: _____

STATE OF _____) :SS
COUNTY OF _____)

On this _____ day of _____, 2014, personally appeared before me,
_____, who being by me duly sworn did say that he is the
_____ of _____, a
corporation, and that the foregoing instrument was signed in behalf of said corporation by
authority of its Board of Directors, and he acknowledged to me that said corporation executed the
same.

NOTARY PUBLIC
My Commission Expires: _____
Residing in _____ County, _____

EXHIBIT A
(Consultant Proposal)



Bowen Collins
& Associates, Inc.
CONSULTING ENGINEERS

154 East 14000 South
Draper, Utah 84020
801.495.2224 (phone)
801.495.2225 (fax)

February 28, 2014

West Jordan Recorder's Office
Attn: Nate Nelson, P.E.
City Engineer
West Jordan City
8000 South Redwood Road
West Jordan, Utah 84088

Subject: Proposal to Provide Engineering Services for 7800 South LOMR Application Assistance

Dear Nate:

Enclosed please find our fee proposal to provide engineering services for 7800 South LOMR Application Assistance. The table provides a detailed breakdown of our manpower estimates, 2014 labor rates, and expenses to complete the project. The fee proposal is consistent with the tasks and assumptions described in our technical proposal.

If our fee proposal does not match West Jordan's budget and anticipated level of effort, we would like the opportunity to discuss our assumptions to determine if they can be adjusted to match your expectations. .

Thank you for the opportunity to provide our technical and fee proposal to assist West Jordan with this project. If you have any questions, please call me at (801) 495-2224.

Sincerely,

Bowen, Collins & Associates

Craig Bagley, P. E.
Principal

Attachment

Exhibit B Fee Schedule

West Jordan City
7800 South LOMR Application Assistance
Engineering Fee Estimate

Bowen Collins & Associates, Inc.
2/28/2014

		Office/Support		Engineers			Subtotal Hours	Subtotal Labor	Expenses	Total Cost
	Labor Category	Office	Editor	Engineer I	Engineer III	Engineer VIII				
	Staff	Dannelly	Hansen	Wright	Stayner	Bagley				
	Labor Rate	\$60	\$60	\$90	\$99	\$141				
Task No.	Task Description									
1	Collect and Review Existing Information				4		4	\$396	\$28	\$424
2	Perform Hydrologic Analysis				8	1	9	\$933	\$63	\$996
3	Perform Storm Drain Hydraulic Analysis			18	16	1	35	\$3,345	\$245	\$3,590
4	Perform Surface Flow Hydraulic Analysis			18	20	2	40	\$3,882	\$280	\$4,162
5	Prepare and Submit LOMR Request FEMA Forms		6	6	20	3	35	\$3,303	\$245	\$3,548
6	Coordination Meetings				6	3	9	\$1,017	\$115	\$1,132
7	FEMA Review Correspondence				8		8	\$792	\$56	\$848
Total:			6	42	82	10	140	\$13,668	\$1,032	\$14,700

Expenses include:

Mileage reimbursement at \$0.75/mile
Computer/Communications Charge at \$7/labor hour
10% Markup on other project related expenses

Hourly rates are adjusted annually to reflect labor rated increases

February 28, 2014

West Jordan Recorder's Office
Attn: Nate Nelson, P.E.
City Engineer
West Jordan City
8000 South Redwood Road
West Jordan, Utah 84088

Subject: Proposal to Provide Engineering Services for 7800 South LOMR Application Assistance

Dear Nate:

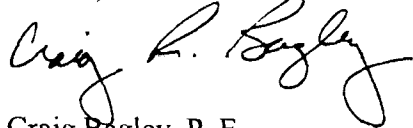
Bowen, Collins & Associates (BC&A) is pleased to submit, for your review and consideration, the attached proposal to provide engineering services for 7800 South LOMR Application Assistance. We are very interested in working with you and other City staff in accomplishing your project objectives and believe that we can provide you with the expertise required to address this challenging floodplain issue.

BC&A staff have talked with City personnel, visited the study area, completed research regarding the history of the FEMA floodplain mapping and discussed the SFHA with FEMA review personnel. Based on what we learned from completing those activities, we have developed an approach that will allow us to confidently state that we can modify or remove the Zone A floodplain in this area so that it will no longer be an issue to the homes and businesses in the area.

Please call if you have any questions or need any additional information.

Sincerely,

Bowen, Collins & Associates



Craig Bagley, P. E.
Principal

Attachment

**CONFLICT OF INTEREST AND
NONCOLLUSION CERTIFICATE**

(To be Executed by Proposer for Professional Services
and Submitted with the Proposal)

State of Utah

County of Salt Lake) ss.
)

Craig Bagley, being first duly sworn, deposes and says that: (1) he or she is Vice President of Bowen, Collins & Associates the party ("Proposer") making the foregoing proposal for professional services; (2) that the proposal is not made in the interest of or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; (3) that the proposal is genuine and not collusive or sham; (4) that the Proposer has not directly or indirectly induced or solicited any other proposer to put in a false or sham proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any other proposer or anyone else to submit a sham proposal or to refrain from proposing on the project; (5) that the Proposer has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal price of the Proposer or any other proposer, or to fix any overhead, profit, or cost element of the proposal price of the Proposer or of any other proposer, or to secure any advantage against the public body awarding the Professional Services Agreement or of anyone interested in the proposed Agreement; (6) that all statements contained in the proposal are true; and (7), that the Proposer has not, directly or indirectly, submitted his or her proposal price or any portion thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, or to any member or agent thereof to effectuate a collusive or sham proposal.

The bidder, offeror, or contractor represents that it has not: (1) provided an illegal gift or payoff to a city officer or employee or former city officer or employee, or his or her relative or business entity; (2) retained any person to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, other than as exempted in the City's Conflict of Interest ordinance; or (3) knowingly influenced (and hereby promises that it will not knowingly influence) a city officer or employee or former city officer or employee to breach any of the ethical standards set forth in the City's Conflict of Interest ordinance, Chapter 2.4, West Jordan City Code.

Proposer: Craig Bagley, P.E.

By: Craig Bagley

Title: Vice President

Organization: Bowen, Collins & Associates

Address: 154 East 14000 South
Draper, UT 84020

PROJECT UNDERSTANDING

There is a FEMA Special Flood Hazard Area (SFHA) shown on the current effective Flood Insurance Rate Map (FIRM) in West Jordan City generally located along 7800 South Street from Redwood Road to the Jordan River. This SFHA area is mapped on a historic natural drainage channel that existed in the 1950s but has since been filled in and developed. Topographic data from the 1950s USGS quadrangle map was apparently used to define the first Approximate Zone A flood hazard zone in the 1970s, when the FIRM was developed for West Jordan. The FIRM has never been updated to reflect the development changes. As a general rule, it is very difficult to remove a SFHA from a map once it has been defined. It is our understanding West Jordan City desires to hire an engineering firm that has experience working with FEMA on difficult floodplain mapping issues like this to develop and submit a request for a Letter of Map Revision (LOMR) that will modify or remove this historic SFHA from the FIRM based on current, more accurate conditions.

Bowen, Collins & Associates staff have talked with City personnel, visited the study area, completed research regarding the history of the FEMA floodplain mapping and discussed the SFHA with FEMA review personnel. Based on what we learned from completing those activities, we have developed an approach that will allow us to confidently state that we can modify or remove the Zone A floodplain in this area so that it will no longer be an issue to the homes and businesses in the area. Our approach and qualifications, along with other information you requested in your RFP are provided below.

PROJECT TEAM AND QUALIFICATIONS

Bowen, Collins & Associates (BC&A) has an in-house team of professionals that has extensive experience in performing FEMA floodplain studies. On this project, Craig Bagley will serve as the Principal-in-charge and Matt Stayner will be the project manager and modeler. Both are Certified Floodplain Managers and have a sound knowledge of the FEMA Guidelines and Specifications, as well as how work with FEMA review staff to get Letters of Map Revisions processed as quickly and efficiently as possible. Mr. Bagley has 40% availability, and Mr. Stayner has 80% availability for this project over the next several months. Mr. Bagley and Mr. Stayner have successfully completed dozens of LOMRs and studied and mapped hundreds of stream miles of floodplains that were accepted by FEMA to be mapped on FIRM's. See the attached table for a list of firm qualifications and related project experience.

Our team has submitted requests for, and received, 3 LOMR's in West Jordan City during the past few years. We used the HEC-HMS model our firm developed for the Storm Drain Master Plan to obtain the needed hydrologic support data for these requests. We also had success on a similar project in Draper City where we removed a historic floodplain that was delineated before development occurred and removed multiple homes from the erroneous FEMA regulatory floodplain. The before and after FIRMs are included as Figures 1 and 2 in the appendix. Our history of working with FEMA our experience in West Jordan City and on other similar projects will aid us in successfully accomplishing your objectives for this project.

Firm Qualifications and Related Project Experience

The table below lists some of the related projects that Bowen, Collins and Associates has recently completed.

Project Name	Project Description	Key Staff Members Involved	Project Size Information	Related Project Elements	Client Contact Information
Spanish Fork River CLOMR/LOMR and Levee Project	BC&A was retained by Spanish Fork City to develop a 100-year floodplain map using a detailed hydraulic model for the Spanish Fork River from the canyon mouth down to Interstate 15. BC&A also worked with Spanish Fork City personnel and an aerial mapping company to develop orthophoto topographic mapping of the study area with 1 foot contours. Topographic information from this mapping was supplemented with over 80 field-surveyed channel cross sections to develop a hydraulic model to develop floodplain maps for the river. BC&A also designed a FEMA-certifiable levee and storm drain system to protect homes west of West Park Drive for the 1%-annual chance flood event. BC&A submitted a request for, and received a Conditional Letter of Map Revision which approved the levee design. Once the levee was constructed, BC&A submitted a request for a Letter of Map Revision (LOMR). The purpose of the LOMR was to revise the effective Flood Insurance Rate Map to reflect the affects of the new levee and the detailed hydraulic analysis and floodplain delineation. The LOMR corrected some errors on the then-effective floodplain maps, which ended up raising the published base flood elevation. We worked closely with City personnel in working through sensitive community relations issues and in meeting the FEMA public notification requirements.	Craig Bagley Matt Stayner Cody Moultrie	River Miles: 7 Cost: \$90,300	<ul style="list-style-type: none"> Hydrology Hydraulics Floodplain Mapping Field Survey Community Involvement Levee Analysis and Design Tie into existing hydraulic model Coordination with FEMA 	Chris Thompson Assistant Public Works Director (801) 804-4556
Mill Creek LOMR, Moab, Utah	BC&A was retained by Moab City to develop a request for a FEMA Letter of Map Revision for over 2 miles of Mill Creek. This project included a new hydrologic evaluation that significantly reduced the magnitude of the 1-percent-chance annual flood, field surveying channel cross sections and hydraulic structures, and developing a new hydraulic model of the study reach of Mill Creek. The project required split flow and shallow sheet flow modeling and required significant coordination with FEMA and their National Technical Service Provider. The project included creation of digital terrain models from existing topographic mapping, utilized HEC-GeoRAS in ArcMap to perform hydraulic analyses, and development of GIS database to FEMA's Data Capture Modernization Program standards.	Craig Bagley Matt Stayner	River Miles: 2 Cost: \$64,500	<ul style="list-style-type: none"> Hydrology Hydraulics Floodplain Mapping Field Survey Coordination with FEMA 	David Olsen Planning & Development Director (435) 259-5129
Washington County, Utah Countywide Map Modernization Project	BC&A served as the study contractor for the Utah Division of Homeland Security and FEMA Regional VIII for the creation of a countywide Flood Insurance Study and Digital Flood Insurance Rate Maps in conjunction with the FEMA Map Modernization Program. The project included 69 miles of detailed/limited detail study, 218 miles of enhanced approximate study, and 18 miles of digitizing of existing effective floodplains. The project included extensive coordination with numerous agencies and community officials during the ongoing mitigation efforts following the 2005 federally declared disaster flooding on the Santa Clara River, Virgin River, Shoal Creek and other streams throughout the County. The project included field survey, hydrologic analyses, creation of digital terrain models from LIDAR and existing topographic mapping, hydraulic model development, calibration, and floodplain mapping utilizing HEC-GeoRAS in ArcMap, and development of a GIS database in accordance with the FEMA Guidelines and Specifications for Study Contractors.	Craig Bagley Matt Stayner Eric Neil Cody Moultrie	River Miles: 305 Cost: \$810,000	<ul style="list-style-type: none"> Hydrology Hydraulics Floodplain Mapping Field Survey Public Meetings Uncertified Levees Coordination with FEMA 	John Crofts State of Utah MMMS Coordinator (801) 538-3332
Grand County, Utah Partial-County Map Modernization Project.	BC&A served as the study contractor for the Utah Division of Homeland Security and FEMA Regional VIII for creation of a partial-county Flood Insurance Study and Digital Flood Insurance Rate Maps in conjunctions with the FEMA Map Modernization Program. The project included technical consideration and coordination with FEMA and the National Service Provider to address various split flow and shallow sheet flow conditions through the City of Moab. The project included creation of digital terrain models from existing topographic mapping, utilized HEC-GeoRAS in ArcMap to perform hydraulic analyses, and development of a GIS database in accordance with the FEMA Guidelines and Specifications for Study Contractors.	Craig Bagley Matt Stayner Eric Neil	River Miles: Cost: \$114,000	<ul style="list-style-type: none"> Hydrology Hydraulics Floodplain Mapping Field Survey Public Meetings Coordination with FEMA 	John Crofts State of Utah MMMS Coordinator (801) 538-3332
Box Elder County, Utah Countywide Map Modernization Project.	BC&A served as the study contractor for the Utah Division of Homeland Security and FEMA Regional VIII for the creation of a countywide Flood Insurance Study and Digital Flood Insurance Rate Maps in conjunction with the FEMA Map Modernization Program. The project included 3 miles of detailed study, 38 miles of enhanced approximate study, and 270 miles of digitizing of existing effective floodplains. The digitized streams were redelineated using the USGS 10-meter DEM to meet the FEMA Floodplain Boundary Standard. Box Elder Creek was the only stream studied in detailed. A regional analysis was used to estimate the one-percent-annual chance discharge for the stream. The regional analysis included the comparison of previous studies and original estimates using regional regression equations and flood frequency analyses. The Box Elder channel does not have capacity to convey the entire one-percent-annual chance flood event. Furthermore, along some reaches of the channel the overbank slopes away from the channel. The discharge leaving the channel and the overland flow away from the channel were modeled in a hydraulic computer program. The project also included field survey, creation of digital terrain models from existing topographic mapping, and floodplain mapping utilizing HEC-GeoRAS in ArcMap, and development of a GIS database in accordance with the FEMA Guidelines and Specifications for Study Contractors.	Craig Bagley Matt Stayner Cody Moultrie	River Miles: 311 Cost: \$282,000	<ul style="list-style-type: none"> Hydrology Hydraulics Floodplain Mapping Field Survey Public Meetings Uncertified Levees Coordination with FEMA 	Amisha Lester State of Utah MMMS Coordinator (801) 538-3752

Project Name	Project Description	Key Staff Members Involved	Project Size Information	Related Project Elements	Client Contact Information
Iron County, Utah Countywide Map Modernization Project.	BC&A served as the study contractor for the Utah Division of Homeland Security and FEMA Regional VIII for the creation of a countywide Flood Insurance Study and Digital Flood Insurance Rate Maps in conjunction with the FEMA Map Modernization Program. The project included 26 miles of detailed/limited detail study, 59 miles of enhanced approximate study, and 109 miles of digitizing of existing effective floodplains. Several of the streams that were modeled with detailed/limited detailed study methods presented challenging situations. Coal Creek, Parowan Creek, Quichapa Channel and Shurtz do not have channel capacity to convey the one-percent-annual chance flood event. Furthermore, along some reaches of each channel the overbank slopes away from the channel. The discharge leaving the channel and the overland flow away from the channel were modeled in a hydraulic computer program. The complexity of the situation was further compounded by the berms or uncertified levees located for some length along each of the rivers. Because the levees were not certified, additional modeling was required. The National Service Provider reviewed and approved the complex hydraulic models. The project also included field survey, hydrologic analyses, creation of digital terrain models from LIDAR and existing topographic mapping, and floodplain mapping utilizing HEC-GeoRAS in ArcMap, and development of a GIS database in accordance with the FEMA Guidelines and Specifications for Study Contractors.	Craig Bagley Matt Stayner Eric Neil Cody Moultrie	River Miles: 194 Cost: \$397,000	<ul style="list-style-type: none"> Hydrology Hydraulics Floodplain Mapping Field Survey Public Meetings Uncertified Levees Coordination with FEMA 	Amisha Lester State of Utah MMMS Coordinator (801) 538-3752
Wasatch County, Utah Countywide Map Modernization Project.	BC&A served as the study contractor for the Utah Division of Homeland Security and FEMA Regional VIII for the creation of a countywide Flood Insurance Study and Digital Flood Insurance Rate Maps in conjunction with the FEMA Map Modernization Program. The project included 32 miles of limited detail study, 60 miles of enhanced approximate study, and 62 miles of digitizing of existing effective floodplains. Several of the streams that were modeled with detailed/limited detailed study methods presented challenging situations as the do not have channel capacity to convey the one-percent-annual chance flood event. Furthermore, along some reaches the overbank slopes away from the channel. The discharge leaving the channel and the overland flow away from the channel were modeled in a hydraulic computer program. The complexity of the situation was further compounded by the berms or uncertified levees located for some length along each of the rivers. Because the levees were not certified, additional modeling was required. The National Service Provider reviewed and approved the complex hydraulic models. The project also included field survey, hydrologic analyses, creation of digital terrain models from LIDAR and existing topographic mapping, and floodplain mapping utilizing HEC-GeoRAS in ArcMap, and development of a GIS database in accordance with the FEMA Guidelines and Specifications for Study Contractors.	Craig Bagley Matt Stayner Eric Neil Cody Moultrie	River Miles: 154 Cost: \$276,000	<ul style="list-style-type: none"> Hydrology Hydraulics Floodplain Mapping Field Survey Public Meetings Uncertified Levees Coordination with FEMA 	Amisha Lester State of Utah MMMS Coordinator (801) 538-3752
Provo River Flood Study – Provo City.	BC&A completed a flood study for the 10-mile reach of the lower Provo River that extends from Utah Lake to the mouth of Provo Canyon. This study included extensive community coordination; coordination with multiple agencies regarding the development of a new 100-year design flow; developing new digital orthophoto topographic maps of the study area; field survey of all hydraulic structures and bridges; field survey of new channel cross sections; and development of a calibrated HEC-RAS hydraulic model of the study reach. A report was prepared that identified areas where improvements are needed to ensure that the River has adequate capacity to safely convey the 100-year flood without damaging existing structures currently located adjacent to the river.	Craig Bagley	River Miles: 10 Cost: \$105,000	<ul style="list-style-type: none"> Hydraulics Floodplain Mapping Field Survey Community Coordination Coordination with FEMA 	Greg Beckstrom, Deputy Director, Provo City Public Works Dept (801) 852-6720
FEMA Letters of Map Revision.	BC&A has extensive experience in the preparation of requests for Letters of Map Revision (LOMR) from the Federal Emergency Management Agency (FEMA). These studies have included hydraulic and hydrologic analyses to establish flood plain boundaries, and base flood elevations along rivers and streams throughout Utah and the west. LOMR's have been successfully obtained by BC&A for the following flooding sources: Boise River, Idaho; Spanish Fork River, Utah; Flat Creek In Jackson Hole, Wyoming; Rocky Mouth Creek in Sandy, Utah; Little Willow Creek in Sandy, Utah; Jordan River in Salt Lake County, Utah; Fiddlers, Dry, and Stephen's Canyon in Cedar City, Utah; Coal Creek in Cedar City, Utah; Dry Canyon Creek in Lindon, Utah; Bear Canyon Creek in Draper, Utah; Emigration Creek in Salt Lake City, Utah; Spring Creek in Summit County, Utah; Squaw Creek in Cedar City, Utah; Quichapa Channel in Cedar City, Utah; Midas Creek, South Jordan, Utah; LaVerkin Creek, Washington County, Utah; Mill Creek, Moab, Utah; Big Cottonwood Creek, Salt Lake County, Utah; Mill Creek, Salt Lake County, Utah; South Fork Dry Creek, Sandy, Utah; Camp Mojave Wash, Arizona; Hyde Park Canyon Wash, Cache County, Utah; Barney's Wash, West Jordan, Utah; Tuacahn Wash, Ivins, Utah; The Gap Wash, St. George, Utah.	Craig Bagley Matt Stayner Cody Moultrie	River Miles: N/A Cost: \$5,000 - \$40,000	<ul style="list-style-type: none"> Hydrology Hydraulics Floodplain Mapping Field Survey Uncertified Levees Coordination with FEMA 	Various Client

Our team also has good working relationships with the FEMA review staff. On every LOMR project we work on, we discuss unique project issues and our proposed approach with the FEMA review staff to obtain concurrence before we submit the map change request. We feel this is key to a quick and efficient approval process.

SCOPE OF WORK

The tasks that we proposed to complete to accomplish your project objectives are summarized below.

Task 1 – Collect and Review Existing Information

We will collect and review available pertinent information needed to complete the analysis (digital base maps, existing and historic Flood Insurance Rate Maps, the effective Flood Insurance Study Report, existing and historic digital USGS Quadrangles, topographic mapping, existing Storm Drain Master Plan Report and associated hydrologic and hydraulic models, storm drain as-builts, etc.). This information will be used to show that the historic drainage had a small tributary area and that it no longer exists.

Task 2 – Perform Hydrologic Analysis

We will develop the 100-year runoff hydrograph for the 7800 South Storm Drain. We will use the existing HEC-HMS hydrologic computer model that BC&A developed for the West Jordan City Storm Drain Master Plan. This model was previously approved by FEMA. We anticipate FEMA will require us to use the highest peak flow of 3-, 6- and 24-hour storm events.

Task 3 – Perform Storm Drain Hydraulic Analysis

We will develop a SWMM 5.0 computer hydraulic model of the 7800 South storm drain from the west end of the effective Zone A floodplain (approximately Redwood Road) to the outfall at the Jordan River. We will develop the geometry of the model based on as-built drawings provided by West Jordan City.

Task 4 – Perform Surface Flow Hydraulic Analysis

We will estimate the amount of flow in the road and develop a HEC-RAS model of the overland flow. The storm drain pipe in 7800 South was designed to convey 55 cfs from the detention pond at Jordan Landing and the 10-year flow downstream of that detention basin. Therefore we expect there will be some surface flow.

We will develop cross sections for the HEC-RAS model using HEC-GeoRAS based on the LiDAR topographic data available from AGRC for the study area. We will use HEC-GeoRAS to delineate the floodplain associated with the 100-year flood. We anticipate any surface

flow to be generally contained in the public right-of-way. We will develop a work map to be included in the LOMR application that will contain:

- Contours
- Floodplain delineation
- Indication of vertical datum
- 2011 NAIP aerial base map
- Flow centerline
- Cross sections
- Base Flood Elevations (BFE's)

Task 5 – Prepare and Submit LOMR Request FEMA Forms

We will prepare and submit FEMA Form 1, entitled “Concurrence and Overview Form”, and Form 2, entitled “Riverine Hydrology & Hydraulics Form” with associated backup data in conjunction with the FEMA request for a Letter of Map Revision (LOMR).

Task 6 – Coordination Meetings

We will attend up to two coordination meetings with representatives of West Jordan City.

Task 6 – FEMA Review Correspondence

We will provide correspondence with FEMA as required during the review period.

Deliverables

Three (3) copies of the final and complete Letter of Map Revision application that meets FEMA Guidelines and Specifications.

Project Assumptions

We made the following assumptions in preparing this Scope of Work:

- The 7800 South as-built drawings certified by a registered professional engineer will be provided to us at no additional cost.
- The OWNER will be responsible for any FEMA review fees.

SCHEDULE

We are available to begin work on this project in the next two weeks. We anticipate being ready to submit the LOMR application within 5 weeks of receiving notice to proceed.

MAN HOURS SUMMARY

Below is the man hours estimate summary table for the project.

		Office/Support		Engineers			Subtotal Hours
Labor Category		Office	Editor	Engineer I	Engineer III	Engineer VIII	
Staff		Dannelly	Hansen	Wright	Stayner	Bagley	
Task No.	Task Description						
1	Collect and Review Existing Information				4		4
2	Perform Hydrologic Analysis				8	1	9
3	Perform Storm Drain Hydraulic Analysis			18	16	1	35
4	Perform Surface Flow Hydraulic Analysis			18	20	2	40
5	Prepare and Submit LOMR Request FEMA Forms		6	6	20	3	35
6	Coordination Meetings				6	3	9
7	FEMA Review Correspondence				8		8
Total:			6	42	82	10	140

REFERENCES

Below is a list of references. Please feel free to contact any of them:

Amisha Lester
State of Utah
MMMS Coordinator
(801) 538-3752

Chris Thompson
Public Works Director
Spanish Fork City
(801) 804-4556

Greg Beckstrom
Deputy Director
Provo City Public Works Dept.
(801) 852-6720

**City of West Jordan
Request for Proposals
7800 South LOMR Application Assistance**

PROJECT DESCRIPTION

The City of West Jordan desires to have the Zone A floodplain shown on the attached figures restudied and removed from the FEMA Flood Insurance Rate Map through the Letter of Map Revision (LOMR) process. There is currently an area shown as Zone A on the FIRMs that affects businesses and homes in the area, requiring them to have flood insurance and subject to the rules of the National Flood Insurance Program. It is not currently known why the Zone-A area exists on the maps without any known natural drainage channel in the area. Even without any natural drainage channels in the area, the City installed a 72-inch RCP stormdrain in 7800 South in 2003 which serves as a major storm drainage trunk line and is designed to contain the 100 year storm event. The City feels that a new hydraulic study will verify that the special flood hazard area can be removed from the FIRM.

The consultant can develop an approach based on project understanding and experience. The following tasks are not required but are offered as a suggestion. This RFP is for a performance based proposal and the final product will be a completed application to FEMA for a Letter of Map Revision, along with continued technical support until a final determination is made by FEMA. The Consultant will prepare all correspondence to FEMA and respond to all requests for information throughout the process. West Jordan City will be named as the applicant and will pay any application fees required for the LOMR. Suggested tasks:

- 1. Collect and review existing information** including but not limited to base maps, Flood Insurance Rate Maps, previous flood insurance studies, USGS Quadrangles, topographic mapping, engineering drawings, aerial photography, GIS data, etc.
- 2. Correspond with FEMA and agree on approach of work.** The Consultant should contact the FEMA LOMC Manager for the area and discuss this effort, agreeing on a step by step approach.
- 3. Perform Hydraulic Analysis.** Develop a 100-year runoff hydrograph for the 7800 South drainage area including the 72-inch stormdrain. Use HEC-HMS modeling software or a suitable alternate. Use the highest peak flow of 3, 6 and 24-hour storm events or as required by FEMA
- 4. Perform a Surface Flow Hydraulic Analysis.**
- 5. Prepare and Submit LOMR application request and FEMA forms.** Prepare and submit all forms, studies, technical data, maps, exhibits, figures, etc. as required by FEMA for the purpose of obtaining an approved LOMR.

6. Coordination Meetings. Attend coordination meetings with representatives of West Jordan City or any other applicable agency.

7. FEMA Review Correspondence. Provide correspondence with FEMA or any other entity as required during the review process and provide any additional technical information as requested.

DELIVERABLES

The final product will be three copies of a hydraulic study and a completed application to FEMA for a Letter of Map Revision. The Consultant will remain engaged through the application submittal process and respond to any requests for additional information that may be made by FEMA or any representative of FEMA. The project will be complete once a final determination is rendered by FEMA based on all available information.

SCHEDULE

February 2014 – Select Consultant

March-April 2014 – Perform Work, Submit LOMR application

PROPOSAL FORMAT

The proposals should contain the following information in the general order listed, and should not exceed ten (10) pages in length:

1. Introductory letter (does not count toward 10 page total).
2. A description of the project team and the qualifications of the firm to complete this project.
3. Identify the availability of the project personnel by showing the percent of time the team members have to work on this project. Identify key personnel critical to the project's completion.
4. A detailed scope of work prepared by the consultant including a summary of the deliverables to be provided to the City.
5. A proposed schedule to complete the scope of work.
6. A summary spreadsheet, to be included in the proposal separately from the sealed fee proposal, of the amount of time in hours estimated to be spent on each task identified in the scope of work and the classification of personnel to be used. The spreadsheet shall show the hours to be spent on each task and the classification of personnel to be assigned to do each task. Identify any special services to be provided by resources outside of the firm.
7. Information about other work performed by the consultant on projects similar to this project and at least three references from other clients with whom the consultant has performed similar services.
8. In a *separate sealed envelope*, provide a single copy of the proposed project fee to complete the project with subtotals by task as identified in the scope of work. Also, include the hourly rates charged for individuals identified on the project team and a summary of all the additional reimbursable expenses considered necessary to complete the study.

9. A City conflict of interest form must be filled out and returned with the proposal (does not count toward the eight page total).
10. Include example executive summaries from at least one similar master plan project completed by the consultant. (These summaries may be included in an appendix and will not count toward the 10 page total).

ENGINEERING CONSULTANT QUALIFICATION

Engineering consultants that will be given consideration must meet the following conditions:

1. Submit a complete proposal including all items requested.
2. Demonstrate experience with LOMR application submittal
3. Use of qualified personnel and civil engineers on the project team.

SUBMITTAL REQUIREMENT

Four (4) copies of the technical proposal and one copy of the sealed fee proposal shall be submitted to the City by **2:00 p.m. on Friday, February 28, 2014.**

Submittals shall be made to the City of West Jordan Records Office, Attention: Nate Nelson, City Engineer, 8000 South Redwood Road, West Jordan, UT 84088.

Questions pertaining to this request for proposals should be directed to Nate Nelson at (801) 569-5072 or email at naten@wjordan.com. A selection committee appointed by City Administration shall review the submittal material.

PROPOSALS AND SCORING (%):

The evaluation process will be based solely on these factors. No other factors or criteria will be used in the evaluation. The evaluation process will include a numeric-scoring sheet as follows:

Provide a description of how you will perform the work.	25%
Submit a brief description of qualifications to perform this type of work.	15%
Provide a list of similar projects with references.	15%
Proposed schedule of work.	10%
Proposed cost of work.	35%